

Test Report
Aggregate Gradation

Project Name	1. Improvement of roads and drain at kogilu layout main road and cross road in ward no 05 byatarayanapura sub division 2. Improvement of roads and drain at kattigenahalli kuvempunagara cross road in ward no 05 byatarayanapura sub division 3. Improvement of drain at dwarakanagara srirama temple road in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at kattigenahalli surrounding area in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at nirantara layout in ward no 05 byatarayanapura sub division 6. Improvement of drain and asphaltting to road at aghara layout harihara temple surrounding area in ward no 05 byatarayanapura sub division
Client	Executive Engineer Project Division Yelahanka Zone
Job No	MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2017-2018/QR/P-8/1
Mix Type	Bituminous Concrete (BC)
Contractor	Sri A Chennareddy
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Hot Mix Plant
Material	Coarse Aggregates
Sample No	1
Date	21-Apr-2018
Weight of Sample: 4000 gms	

Sl. No.	I.S. Sieve size (mm)	Weight Retained (gm)	Percentage of weight Retained (%)	Cumulative Percentage of weight retained (%)	Cumulative % of Passing		Remarks
					Test Result	Gradation Limits as per MORT&H	
1	19.00	0	0.00	0.00	100.00	100	Gradation satisfies the MORT&H Grade II Specification for Bituminous Concrete
2	13.20	675	16.88	16.88	83.13	72-100	
3	9.50	432	10.80	27.68	72.33	70-88	
4	4.75	231	5.78	33.45	66.55	53-71	
5	2.36	481	12.03	45.48	54.53	42-58	
6	1.18	343	8.58	54.05	45.95	34-48	
7	0.60	436	10.90	64.95	35.05	26-38	
8	0.30	430	10.75	75.70	24.30	18-28	
9	0.15	381	9.53	85.23	14.78	12-20	
10	0.075	360	9.00	94.23	5.77	(4-10)	

Note:

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For Mecadez Core Technologies Private Limited

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore



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MECADEZ CORE TECHNOLOGIES PRIVATE LIMITED
PROJECT MANAGEMENT & CONSULTANCY SERVICES

Test Report Aggregate Gradation

Project Name	1. Improvement of roads and drain at kogilu layout main road and cross road in ward no 05 byatarayanapura sub division 2. Improvement of roads and drain at kattigenahalli kuvempunagara cross road in ward no 05 byatarayanapura sub division 3. Improvement of drain at dwarakanagara srirama temple road in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at kattigenahalli surrounding area in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at nirantera layout in ward no 05 byatarayanapura sub division 6. Improvement of drain and asphaltting to road at agraphara layout harihara temple surrounding area in ward no 05 byatarayanapura sub division
Client	Executive Engineer Project Division Yelahanka Zone
Job No	MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2017-2018/QR/P-8/1
Mix Type	Bituminous Concrete (BC)
Contractor	Sri A Chennareddy
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Hot Mix Plant
Material	Coarse Aggregates
Sample No	2
Date	22-Apr-2018

Weight of Sample: 4000 gms

Sl. No.	I.S. Sieve size (mm)	Weight Retained (gm)	Percentage of weight Retained (%)	Cumulative Percentage of weight retained (%)	Cumulative % of Passing		Remarks
					Test Result	Gradation Limits as per MORT&H	
1	19.00	0	0.00	0.00	100.00	100	Gradation satisfies the MORT&H Grade II Specification for Bituminous Concrete
2	13.20	671	16.78	16.78	83.23	72-100	
3	9.50	416	10.40	27.18	72.83	70-88	
4	4.75	235	5.88	33.05	66.95	53-71	
5	2.36	485	12.13	45.18	54.83	42-58	
6	1.18	315	7.88	53.05	46.95	34-48	
7	0.60	420	10.50	63.55	36.45	26-38	
8	0.30	380	9.50	73.05	26.95	18-28	
9	0.15	376	9.40	82.45	17.55	12-20	
10	0.075	369	9.23	91.68	8.32	(4-10)	

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Client	Executive Engineer Project Division Yelahanka Zone
Job No	MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2017-2018/QR/P-8/1
Mix Type	Bituminous Concrete (BC)
Contractor	Sri A Chennareddy
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Hot Mix Plant
Material	Coarse Aggregates
Sample No	3
Date	23-Apr-2018

Weight of Sample: 4000 gms

Sl. No.	I.S. Sieve size (mm)	Weight Retained (gm)	Percentage of weight Retained (%)	Cumulative Percentage of weight retained (%)	Cumulative % of Passing		Remarks
					Test Result	Gradation Limits as per MORT&H	
1	19.00	0	0.00	0.00	100.00	100	Gradation satisfies the MORT&H Grade II Specification for Bituminous Concrete
2	13.20	662	16.55	16.55	83.45	72-100	
3	9.50	412	10.30	26.85	73.15	70-88	
4	4.75	231	5.78	32.63	67.38	53-71	
5	2.36	431	12.03	44.65	55.35	42-58	
6	1.18	311	7.78	52.43	47.58	34-48	
7	0.60	416	10.40	62.83	37.18	26-38	
8	0.30	378	9.45	72.28	27.73	18-28	
9	0.15	368	9.20	81.48	18.53	12-20	
10	0.075	360	9.00	90.48	9.53	(4-10)	

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Test Report
Stability of Mix

Project Name	1. Improvement of roads and drain at kogilu layout main road and cross road in ward no 05 byatarayanapura sub division 2. Improvement of roads and drain at kattigenahalli kuvempunagara cross road in ward no 05 byatarayanapura sub division 3. Improvement of drain at dwarakanagara srirama temple road in ward no 05 byatarayanapura sub division 4. Improvement of roads and drain at kattigenahalli surrounding area in ward no 05 byatarayanapura sub division 5. Improvement of roads and drain at nirantera layout in ward no 05 byatarayanapura sub division 6. Improvement of drain and asphaltting to road at agraphara layout harihara temple surrounding area in ward no 05 byatarayanapura sub division
Client	Executive Engineer Project Division Yelahanka Zone
Job No	MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2017-2018/QR/P-
Mix Type	Bituminous Concrete (BC)
Contractor	Sri A Chennareddy
Test Method	Specification for Road & Bridge Works, MORT&H, Revision V.
Location	Bay
Material	Bituminous Concrete mix
Sample No	1
Date	22-Apr-2018

Sl. No.	Description	Unit	Test 1	Requirements as per MORT&H
1	Marshal Stability	KN	9.6	9 KN (min)
2	Marshal Flow	mm	3.53	2 - 4 mm
3	Percent of Air Voids in mix	%	4.36	3 - 6 %
4	Percent of Voids in Mineral Aggregates filled with Bitumen	%	71	65 - 75 %
5	Density	g/cc	2.22	2.22 g/cc

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Test Report
Stability of Mix

Project Name 1. Improvement of roads and drain at kogilu layout main road and cross road in ward no 05 byatarayanapura sub division
2. Improvement of roads and drain at kattigenahalli kuvempunagara cross road in ward no 05 byatarayanapura sub division
3. Improvement of drain at dwarakanagara srirama temple road in ward no 05 byatarayanapura sub division
4. Improvement of roads and drain at kattigenahalli surrounding area in ward no 05 byatarayanapura sub division
5. Improvement of roads and drain at nirantara layout in ward no 05 byatarayanapura sub division
6. Improvement of drain and asphaltting to road at agraphara layout harihara temple surrounding area in ward no 05 byatarayanapura sub division

Client Executive Engineer Project Division Yelahanka Zone
Job No MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2017-2018/QR/P-
Mix Type Bituminous Concrete (BC)
Contractor Sri A Chennareddy
Test Method Specification for Road & Bridge Works, MORT&H, Revision V.
Location Bay
Material Bituminous Concrete mix
Sample No 2
Date 22-Apr-2018

Sl. No.	Description	Unit	Test 1	Requirements as per MORT&H
1	Marshal Stability	KN	9.61	9 KN (min)
2	Marshal Flow	mm	3.51	2 - 4 mm
3	Percent of Air Voids in mix	%	4.53	3 - 6 %
4	Percent of Voids in Mineral Aggregates filled with Bitumen	%	71.7	65 - 75 %
5	Density	g/cc	2.21	2.22 g/cc

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Test Report
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3. Improvement of drain at dwarakanagara srirama temple road in ward no 05 byatarayanapura sub division
4. Improvement of roads and drain at kattigenahalli surrounding area in ward no 05 byatarayanapura sub division
5. Improvement of roads and drain at nirantara layout in ward no 05 byatarayanapura sub division
6. Improvement of drain and asphaltting to road at aghara layout harihara temple surrounding area in ward no 05 byatarayanapura sub division

Client Executive Engineer Project Division Yelahanka Zone
Job No MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2017-2018/QR/P-
Mix Type Bituminous Concrete (BC)
Contractor Sri A Chennareddy
Test Method Specification for Road & Bridge Works, MORT&H, Revision V.
Location Bay
Material Bituminous Concrete mix
Sample No 3
Date 22-Apr-2018

Sl. No.	Description	Unit	Test 1	Requirements as per MORT&H
1	Marshal Stability	KN	9.74	9 KN (min)
2	Marshal Flow	mm	3.43	2 - 4 mm
3	Percent of Air Voids in mix	%	4.63	3 - 6 %
4	Percent of Voids in Mineral Aggregates filled with Bitumen	%	72.8	65 - 75 %
5	Density	g/cc	2.22	2.22 g/cc

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Client	Executive Engineer Project Division Yelahanka Zone
Job No	MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2017-2018/QR/P-
Mix Type	Bituminous Concrete (BC)
Contractor	Sri A Chennareddy
Test Method	Specification for Road & Bridge Works, MORT&H, Revision V.
Location	Bay
Material	Bituminous Concrete mix
Sample No	4
Date	23-Apr-2018

Sl. No.	Description	Unit	Test 1	Requirements as per MORT&H
1	Marshal Stability	KN	9.5	9 KN (min)
2	Marshal Flow	mm	3.6	2 - 4 mm
3	Percent of Air Voids in mix	%	4.73	3 - 6 %
4	Percent of Voids in Mineral Aggregates filled with Bitumen	%	71.38	65 - 75 %
5	Density	g/cc	2.22	2.22 g/cc

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Client	Executive Engineer Project Division Yelahanka Zone
Job No	MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2017-2018/QR/P-
Mix Type	Bituminous Concrete (BC)
Contractor	Sri A Chennareddy
Test Method	Specification for Road & Bridge Works, MORT&H, Revision V.
Location	Bay
Material	Bituminous Concrete mix
Sample No	5
Date	23-Apr-2018

Sl. No.	Description	Unit	Test 1	Requirements as per MORT&H
1	Marshal Stability	KN	9.6	9 KN (min)
2	Marshal Flow	mm	3.4	2 - 4 mm
3	Percent of Air Voids in mix	%	4.85	3 - 6 %
4	Percent of Voids in Mineral Aggregates filled with Bitumen	%	70.1	65 - 75 %
5	Density	g/cc	2.21	2.22 g/cc

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Test Report Stability of Mix

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Client	Executive Engineer Project Division Yelahanka Zone
Job No	MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2017-2018/QR/P-
Mix Type	Bituminous Concrete (BC)
Contractor	Sri A Chennareddy
Test Method	Specification for Road & Bridge Works, MORT&H, Revision V.
Location	Bay
Material	Bituminous Concrete mix
Sample No	6
Date	23-Apr-2018

Sl. No.	Description	Unit	Test 1	Requirements as per MORT&H
1	Marshal Stability	KN	9.81	9 KN (min)
2	Marshal Flow	mm	3.23	2 - 4 mm
3	Percent of Air Voids in mix	%	4.46	3 - 6 %
4	Percent of Voids in Mineral Aggregates filled with Bitumen	%	71.53	65 - 75 %
5	Density	g/cc	2.22	2.22 g/cc

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Test Report
Stability of Mix

Project Name 1. Improvement of roads and drain at kogilu layout main road and cross road in ward no 05 byatarayanapura sub division
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3. Improvement of drain at dwarakanagara srirama temple road in ward no 05 byatarayanapura sub division
4. Improvement of roads and drain at kattigenahalli surrounding area in ward no 05 byatarayanapura sub division
5. Improvement of roads and drain at nirantara layout in ward no 05 byatarayanapura sub division
6. Improvement of drain and asphaltting to road at agrahara layout harihara temple surrounding area in ward no 05 byatarayanapura sub division

Client Executive Engineer Project Division Yelahanka Zone
Job No MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2017-2018/QR/P-
Mix Type Bituminous Concrete (BC)
Contractor Sri A Chennareddy
Test Method Specification for Road & Bridge Works, MORT&H, Revision V.
Location Bay
Material Bituminous Concrete mix
Sample No 7
Date 24-Apr-2018

Sl. No.	Description	Unit	Test 1	Requirements as per MORT&H
1	Marshal Stability	KN	9.5	9 KN (min)
2	Marshal Flow	mm	3.1	2 - 4 mm
3	Percent of Air Voids in mix	%	4.35	3 - 6 %
4	Percent of Voids in Mineral Aggregates filled with Bitumen	%	72.1	65 - 75 %
5	Density	g/cc	2.23	2.22 g/cc

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4. Improvement of roads and drain at kattigenahalli surrounding area in ward no 05 byatarayanapura sub division
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6. Improvement of drain and asphaltting to road at agraphara layout harihara temple surrounding area in ward no 05 byatarayanapura sub division

Client Executive Engineer Project Division Yelahanka Zone
Job No MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2017-2018/QR/P-
Mix Type Bituminous Concrete (BC)
Contractor Sri A Chennareddy
Test Method Specification for Road & Bridge Works, MORT&H, Revision V.
Location Bay
Material Bituminous Concrete mix
Sample No 8
Date 24-Apr-2018

Sl. No.	Description	Unit	Test 1	Requirements as per MORT&H
1	Marshal Stability	KN	9.4	9 KN (min)
2	Marshal Flow	mm	3.4	2 - 4 mm
3	Percent of Air Voids in mix	%	4.25	3 - 6 %
4	Percent of Voids in Mineral Aggregates filled with Bitumen	%	72	65 - 75 %
5	Density	g/cc	2.23	2.22 g/cc

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